

FIG. 1a

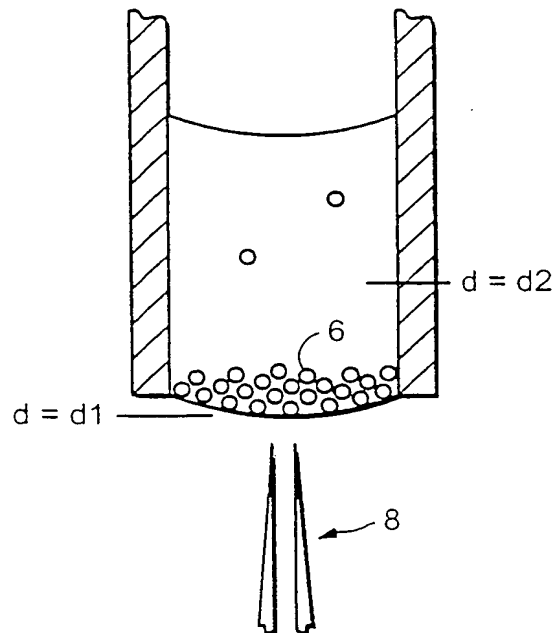


FIG. 1b

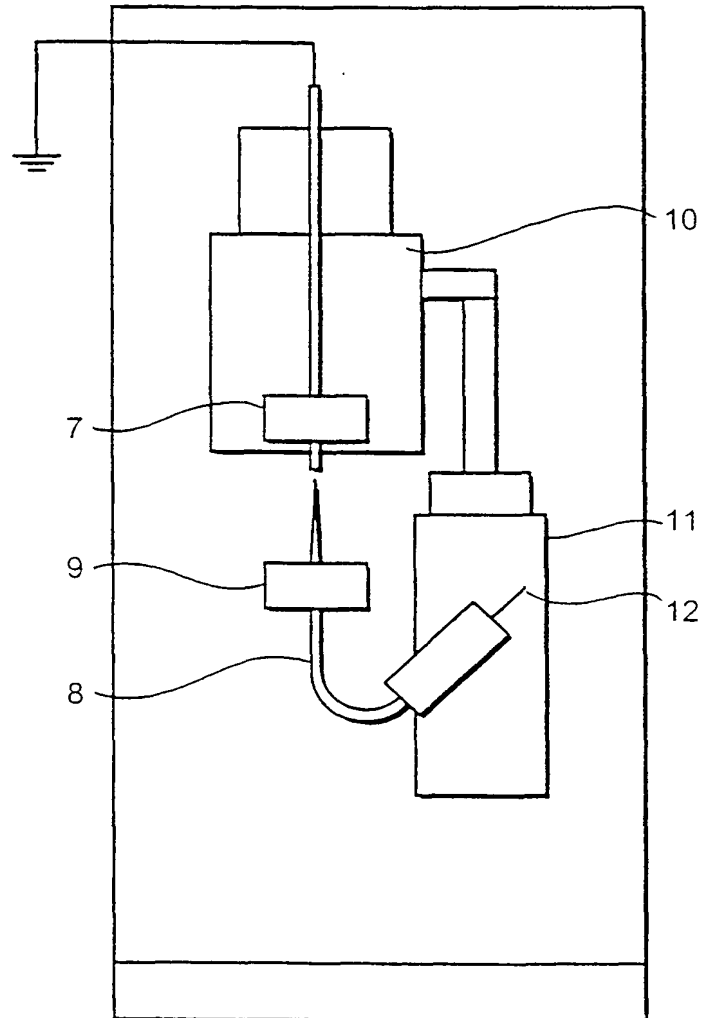


FIG. 2

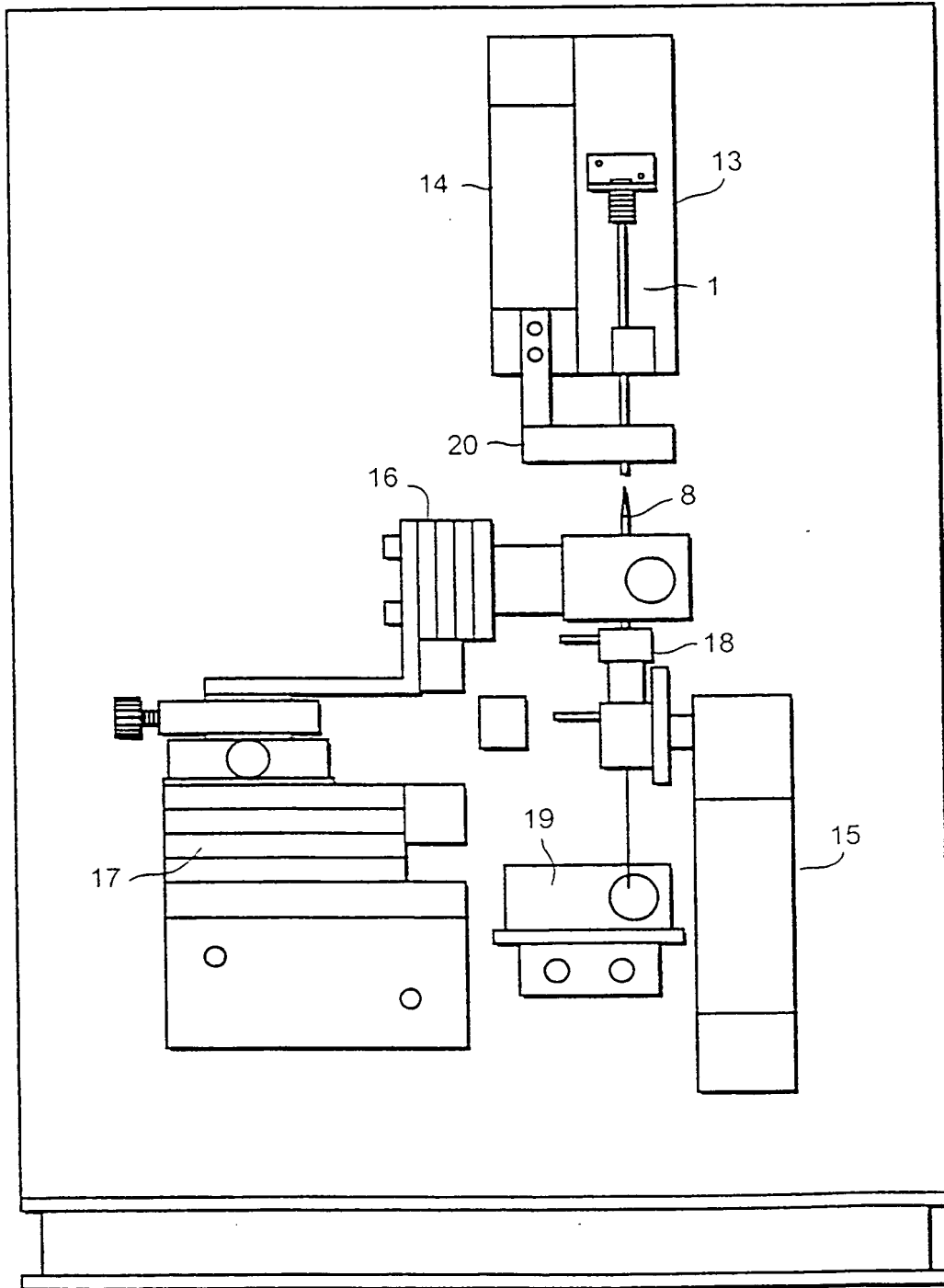


FIG. 2a

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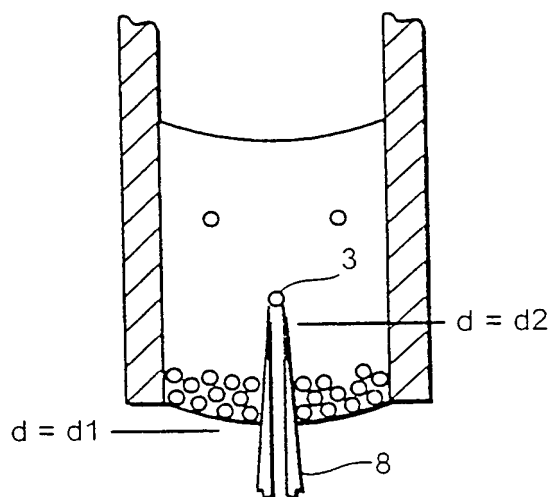


FIG. 3

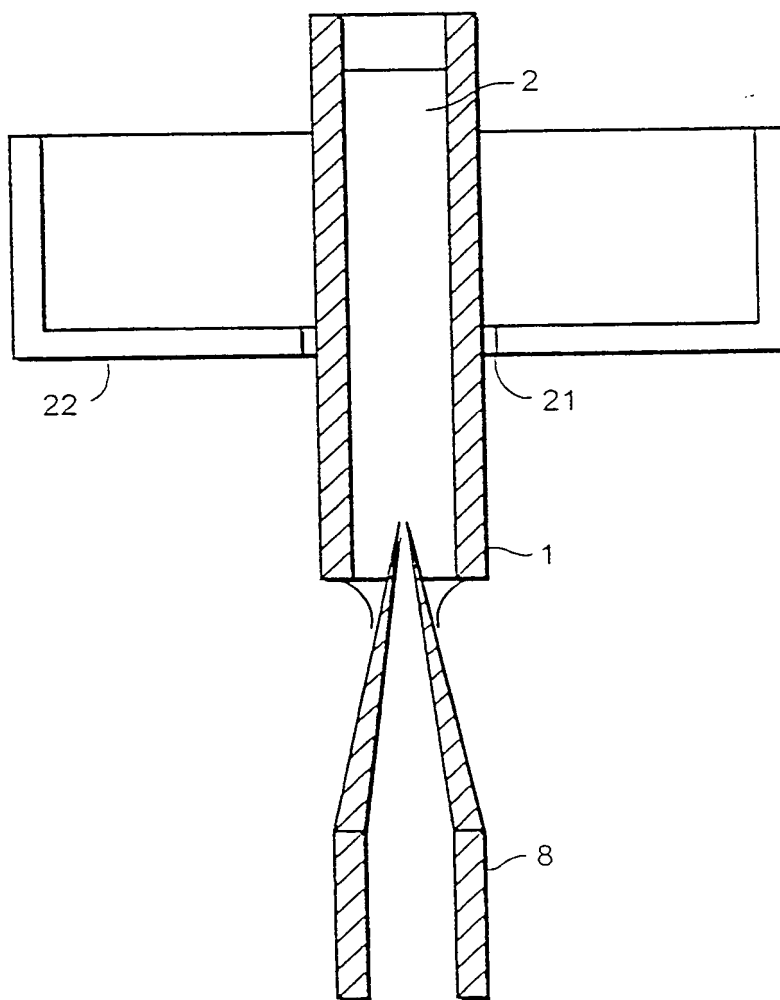


FIG. 4

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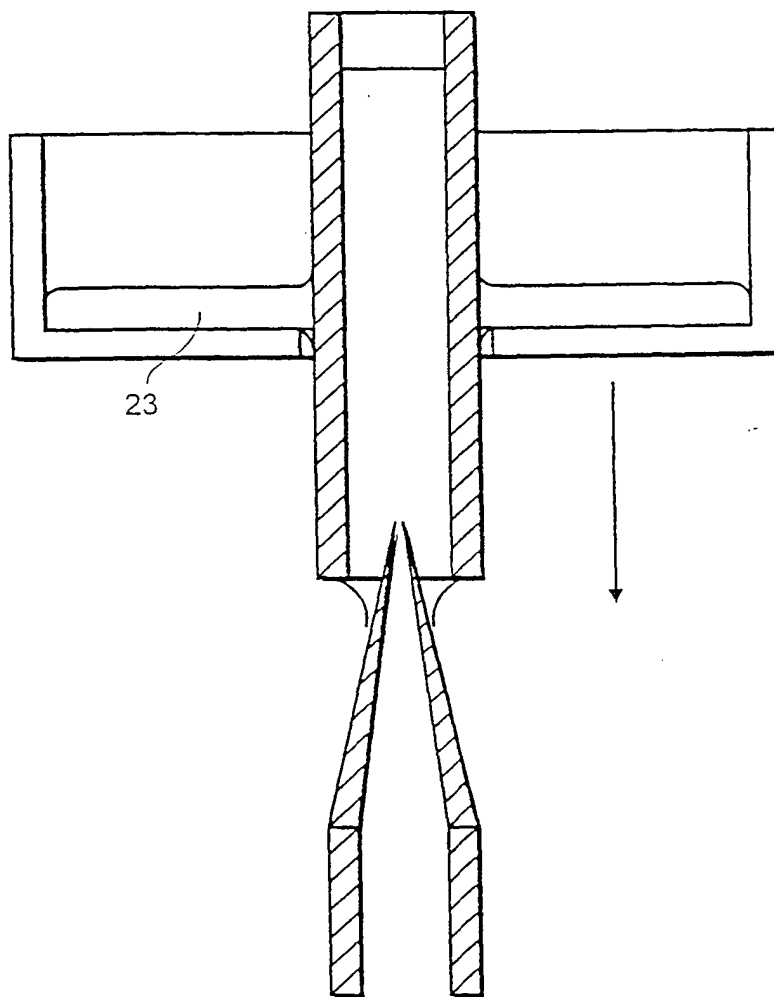


FIG. 5

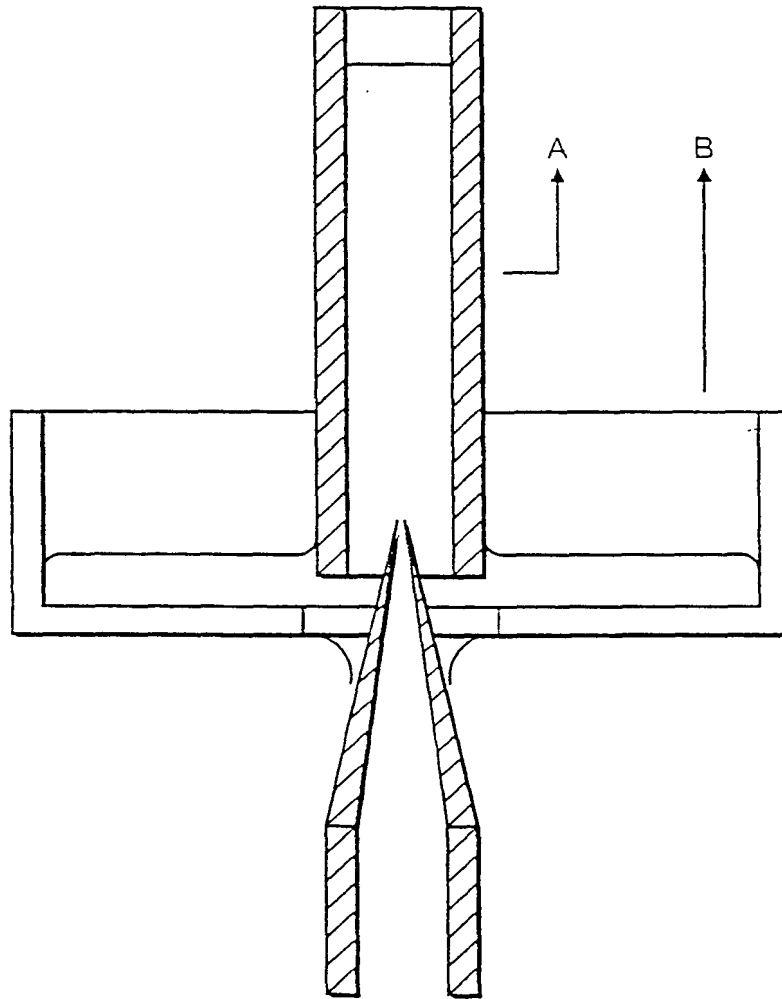


FIG. 6

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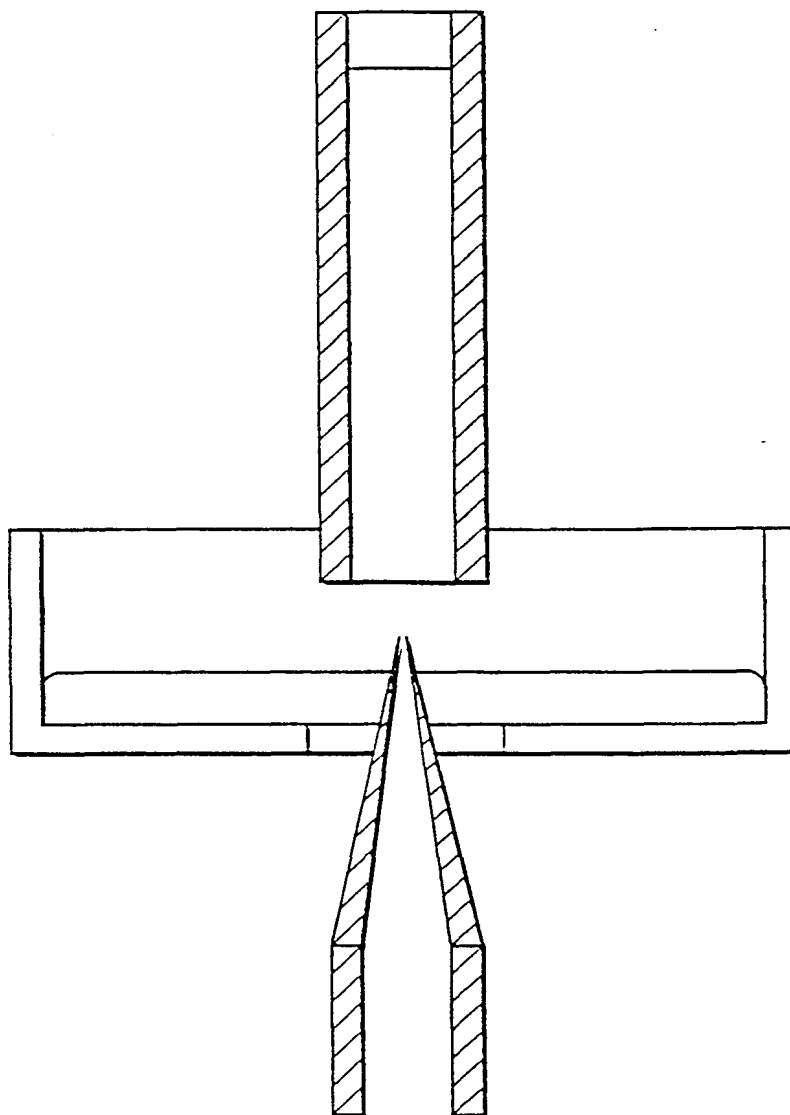


FIG. 7

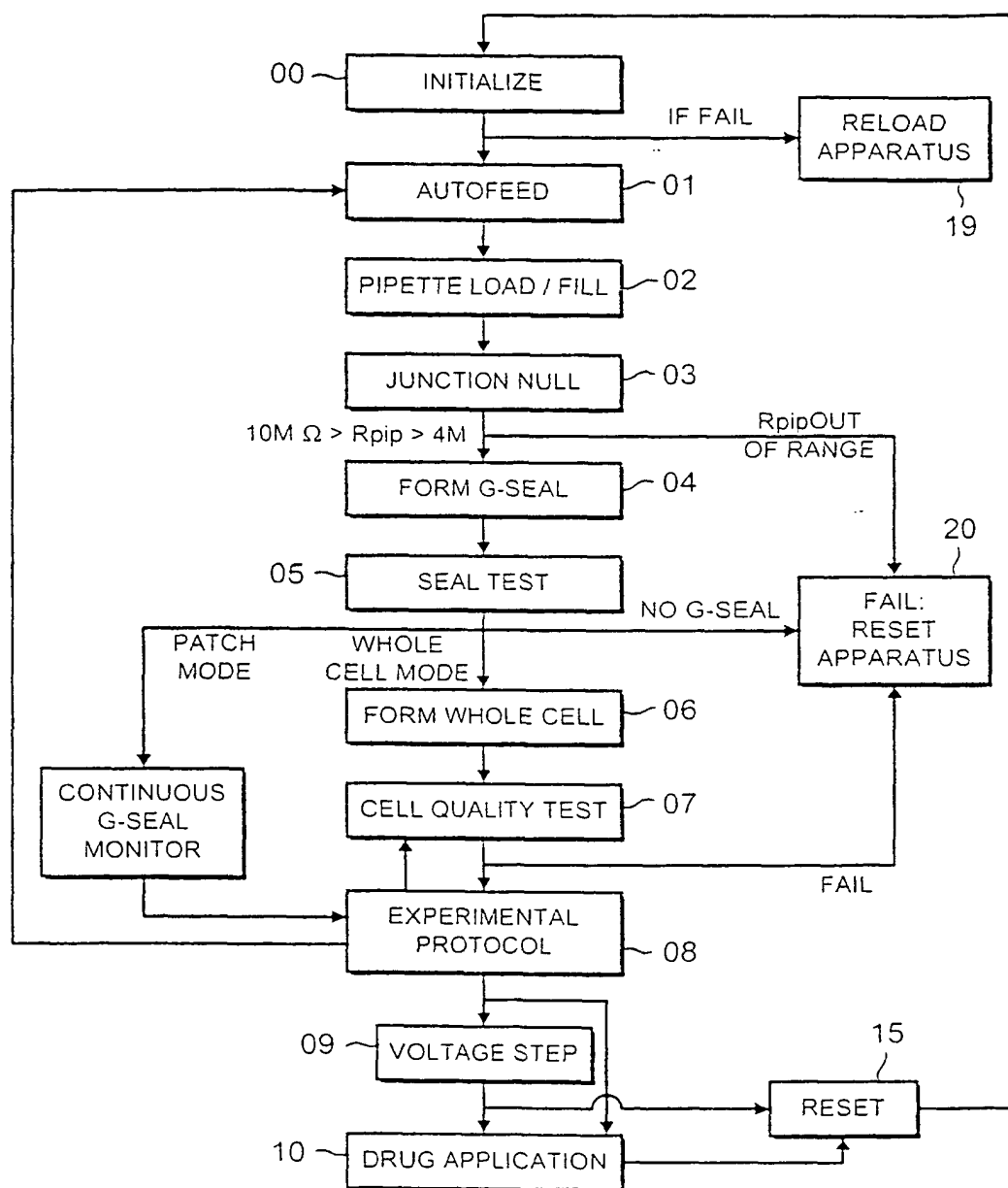


FIG. 8



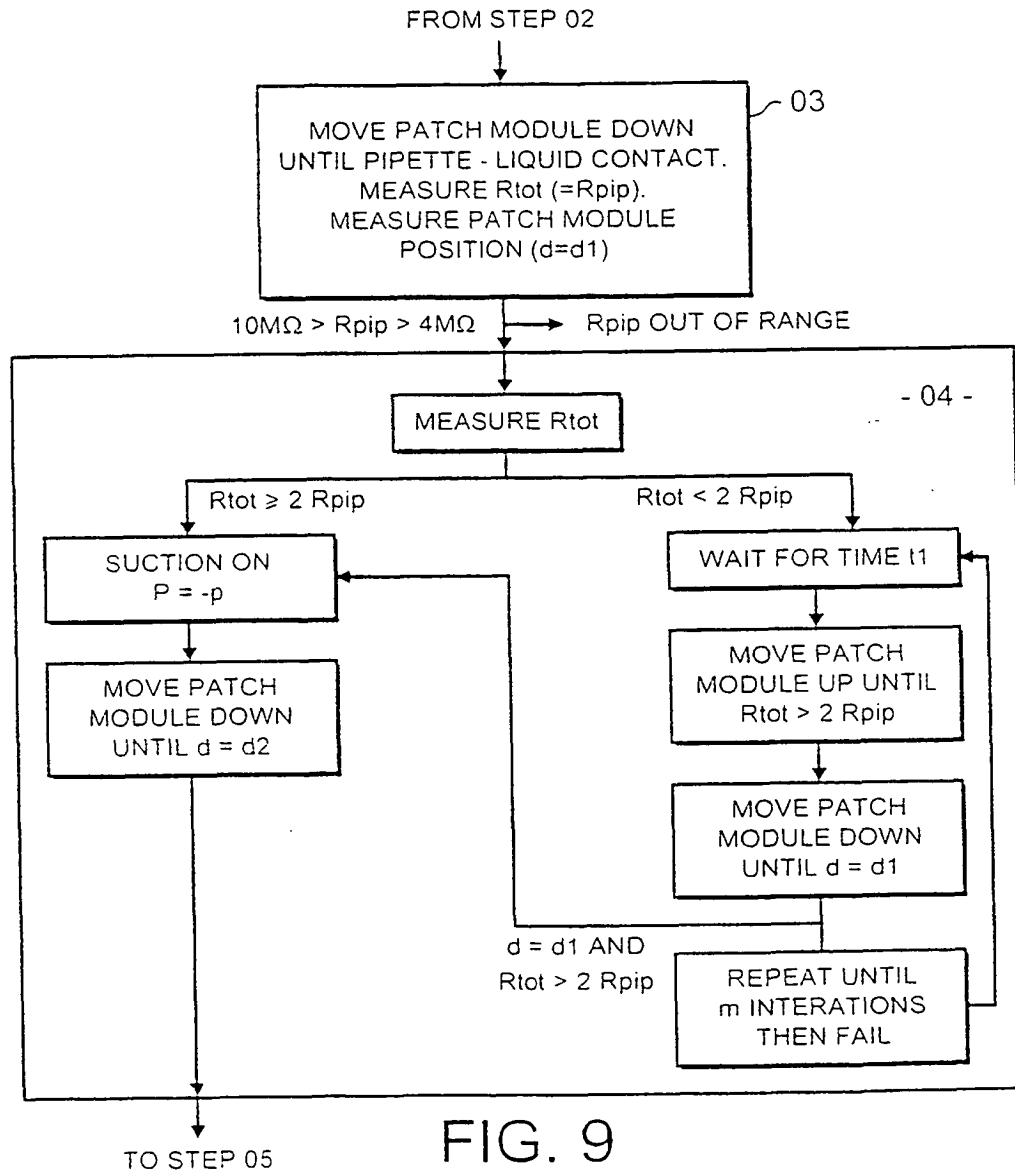


FIG. 10

START HEKA PULSE.  
LOAD AUTOPATCH CONFIGURATION FILE.  
LOAD AUTOPATCH PULSE GENERATOR  
FILE OR DERIVATIVE.

START AUTOPATCH  
LOAD SETTINGS FILE  
TURN ON MOTION CONTROLLER  
HIT RESET.  
WHEN BLEEP OCCURS TURN  
ON Clevel

ALL OK ?

YES

NO

PANIC !

ARE THE  
CONTROLLERS  
READY ?

INITIALISED ?

TRUE

FALSE

RESET

320

CREATE LOG

START\_STAGE =  
"OUT OF INTERFACE" ?

FALSE

TRUE

ARE THE AXIS IN  
THEIR START  
POSITIONS ?

CAPILLARY  
POS AT HOME

FIG. 10a

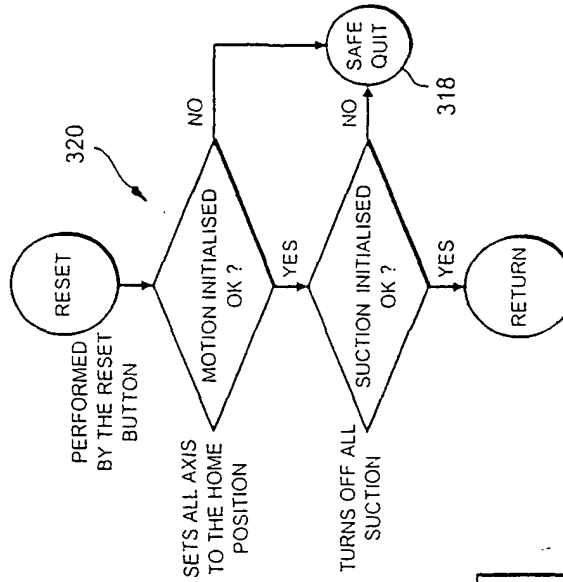


FIG. 10b

PERFORMED AT ALL  
POINTS BEFORE  
AUTOPATCH STOPS  
FOR ANY REASON

SAFE  
QUIT

STOP MOTION  
GIVE INDICATION TO  
USER OF FAILURE

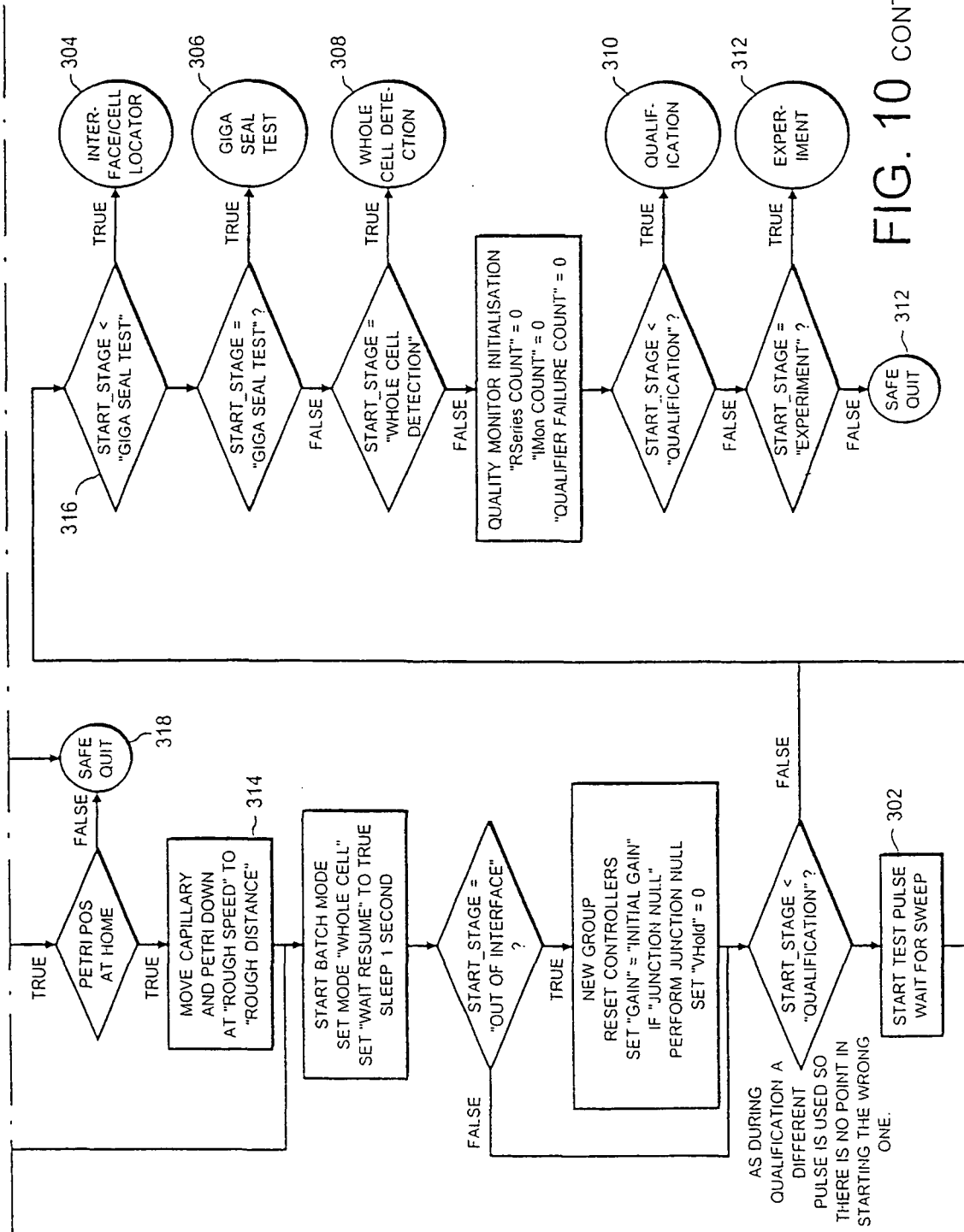


FIG. 11

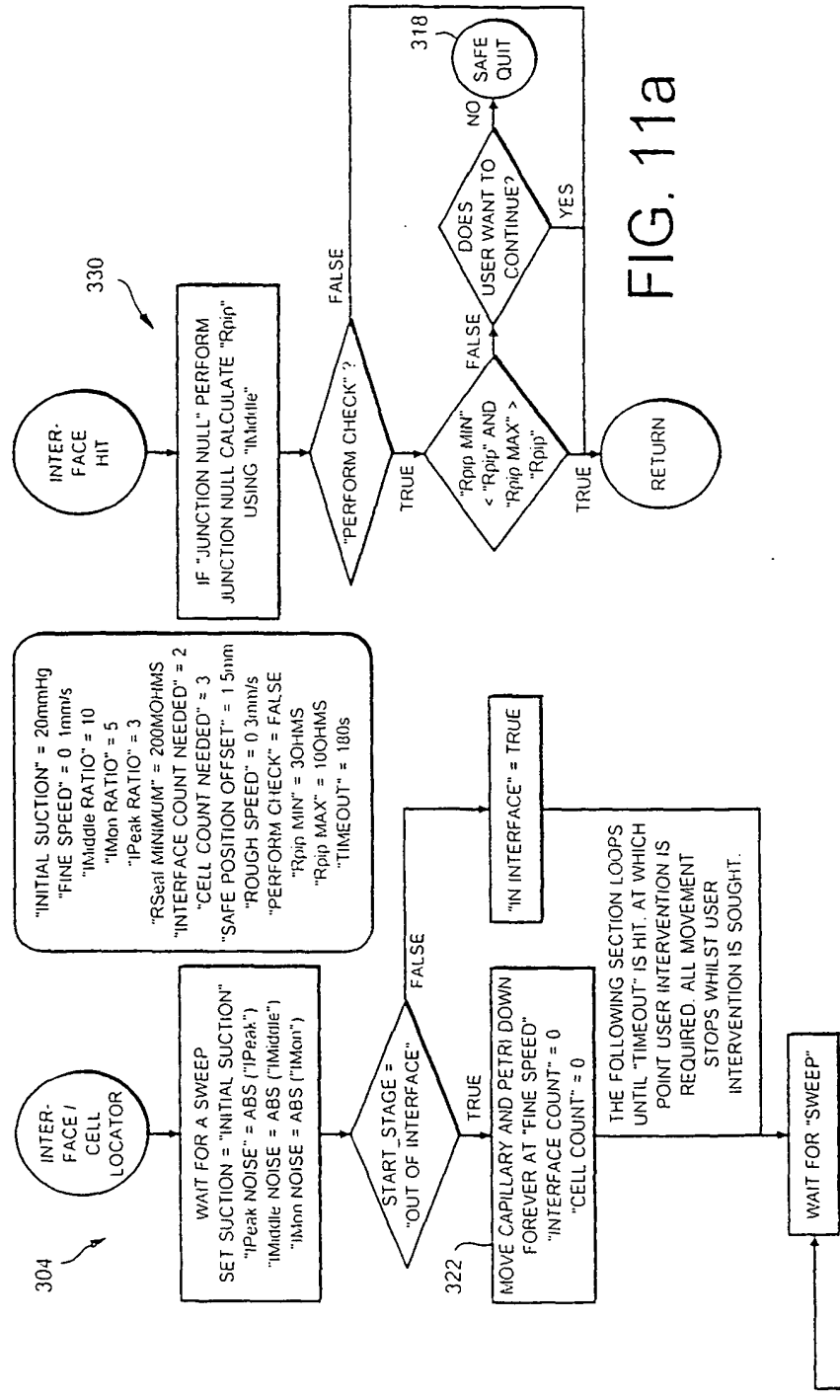
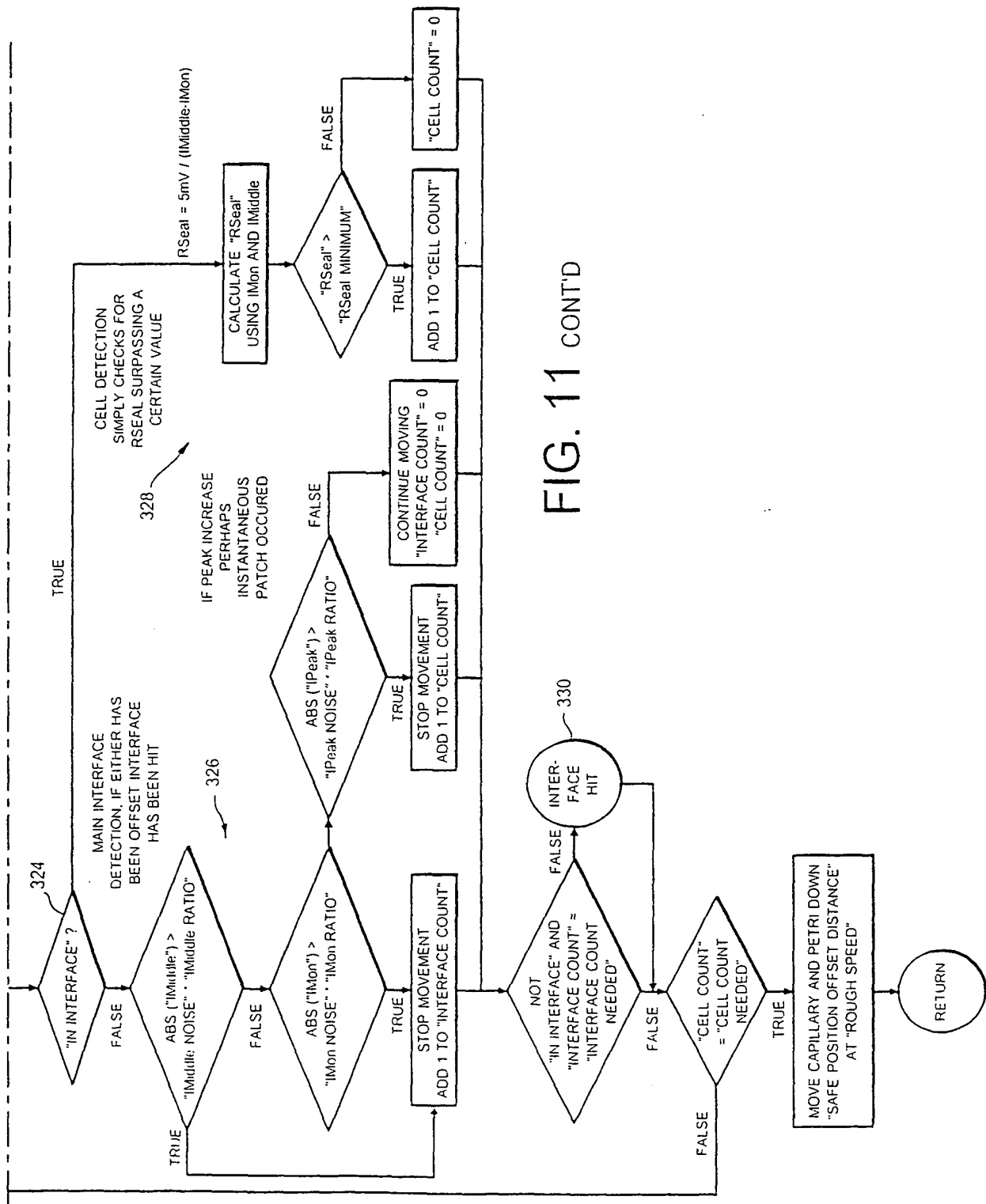
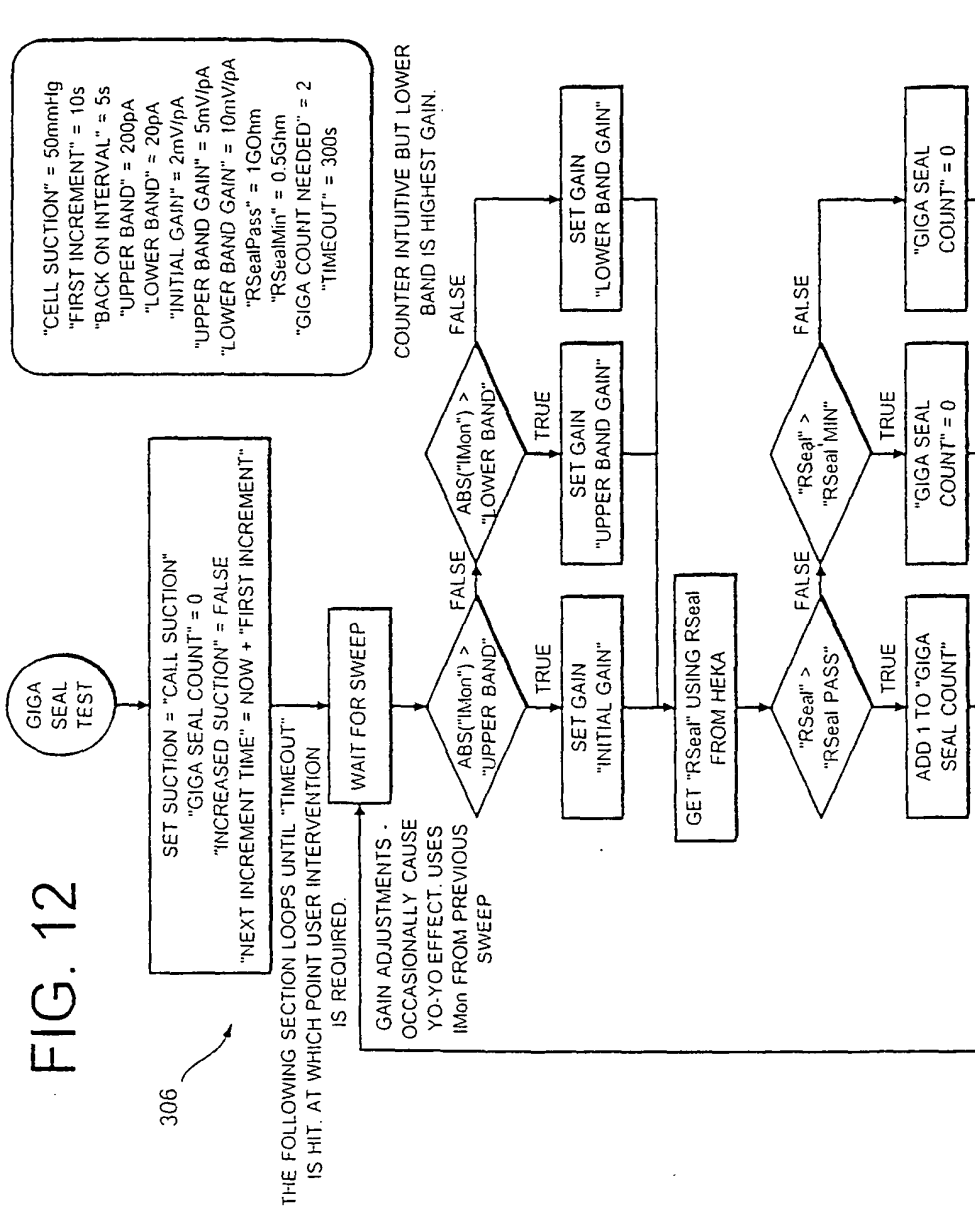


FIG. 11a





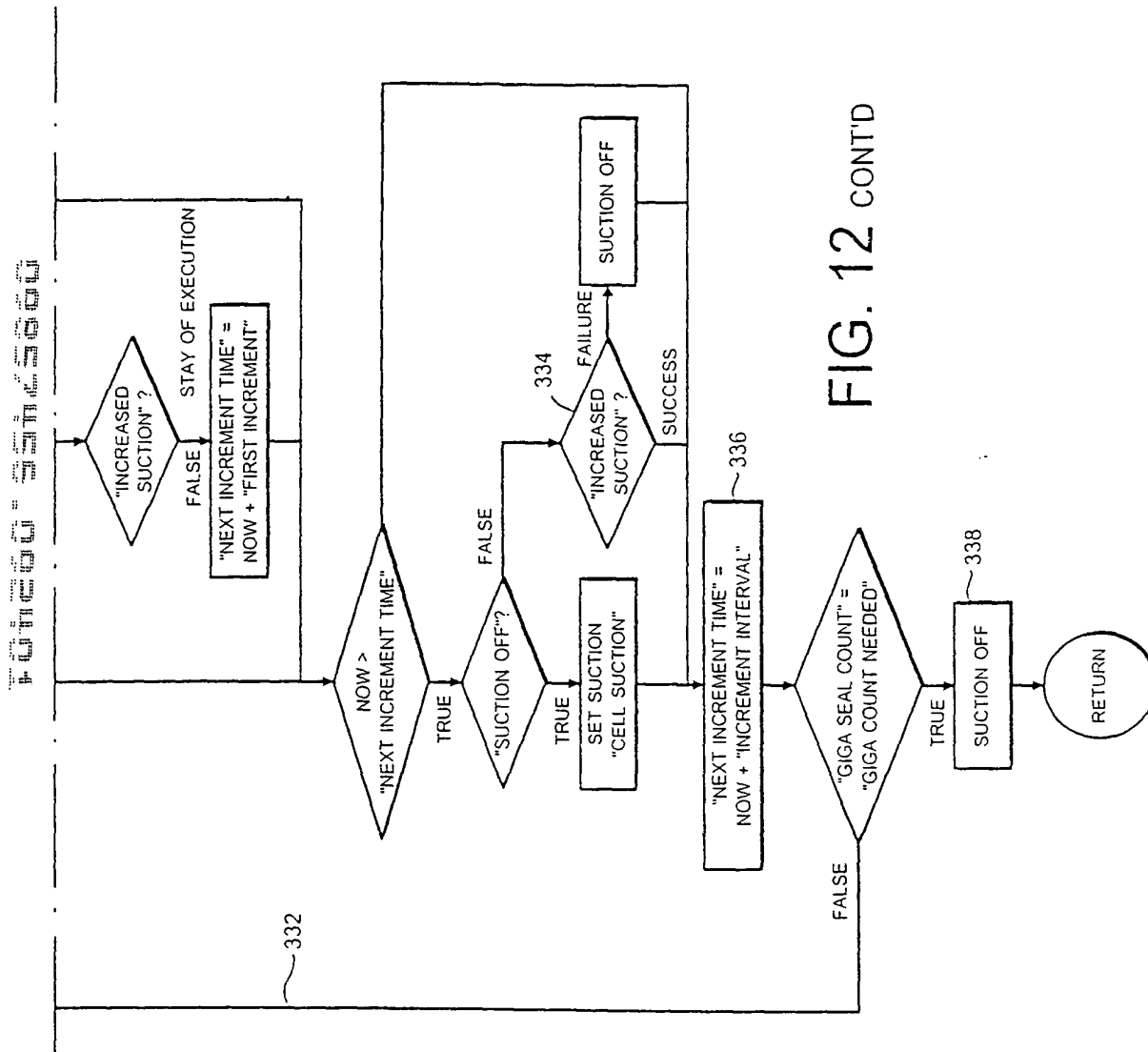
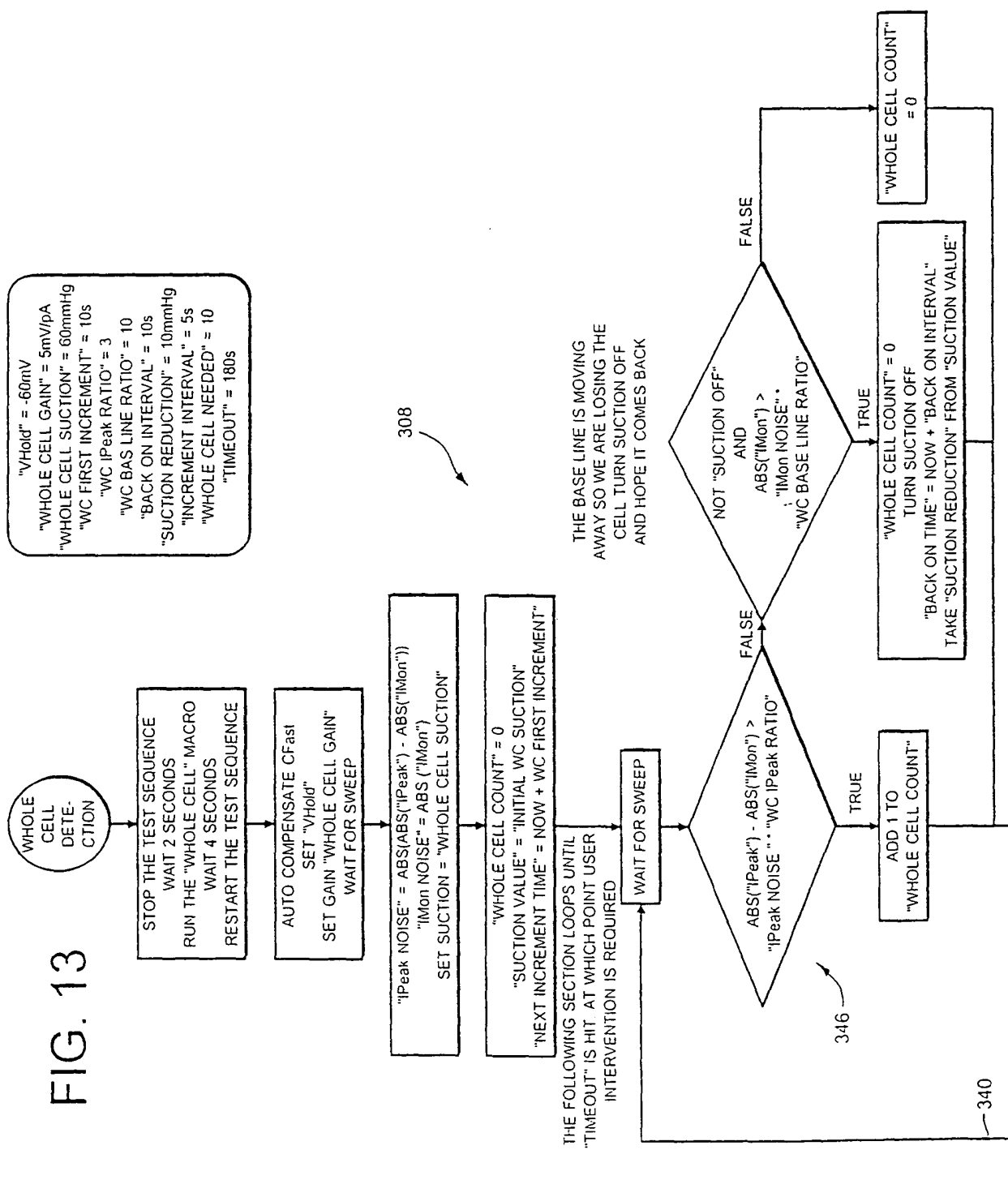
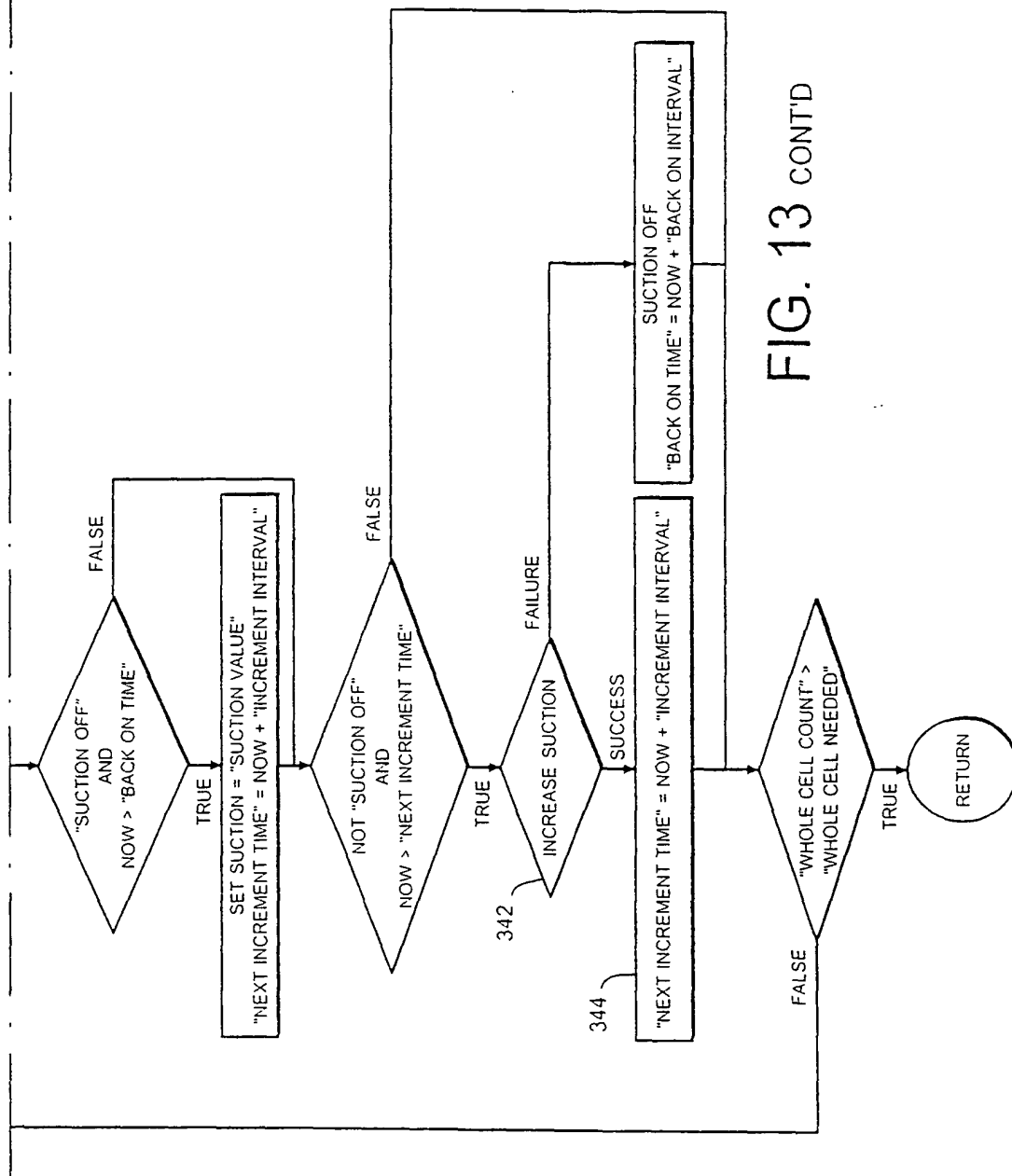
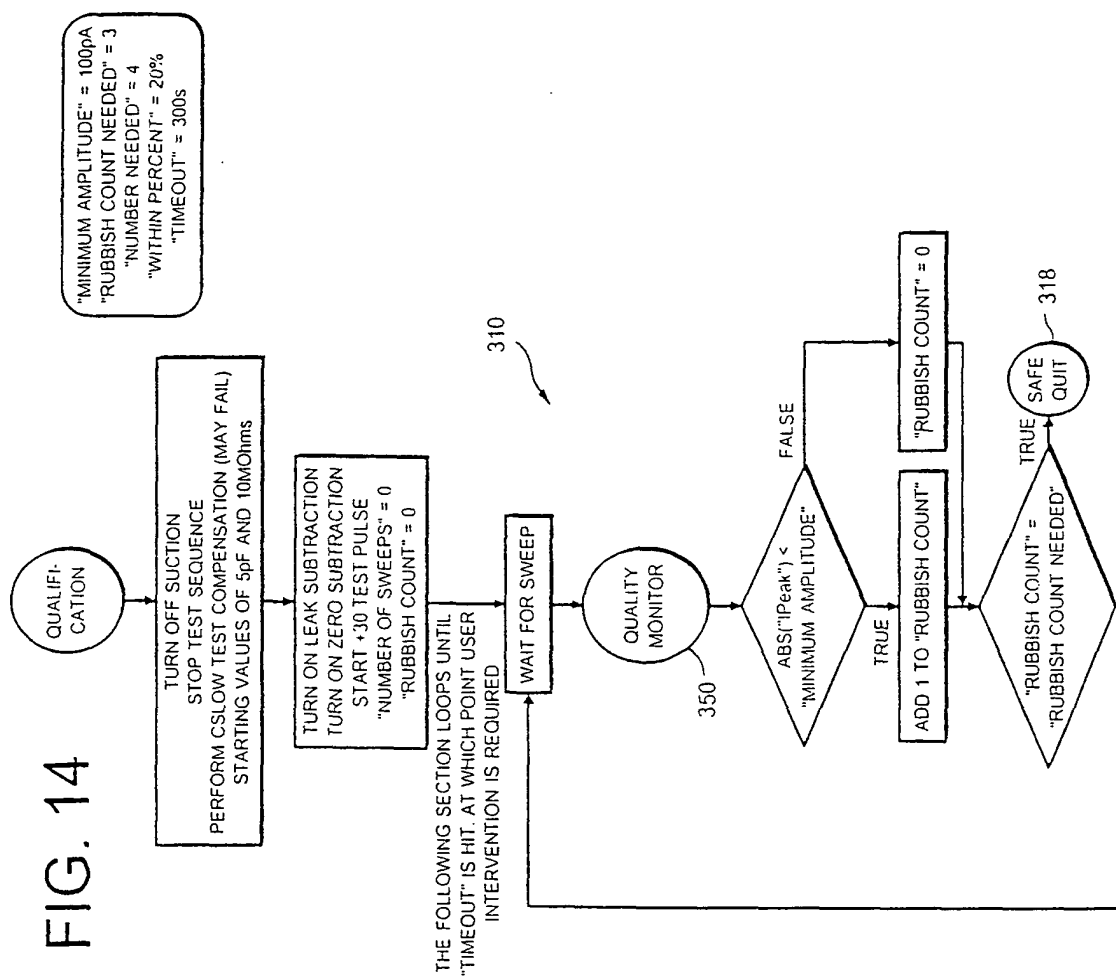


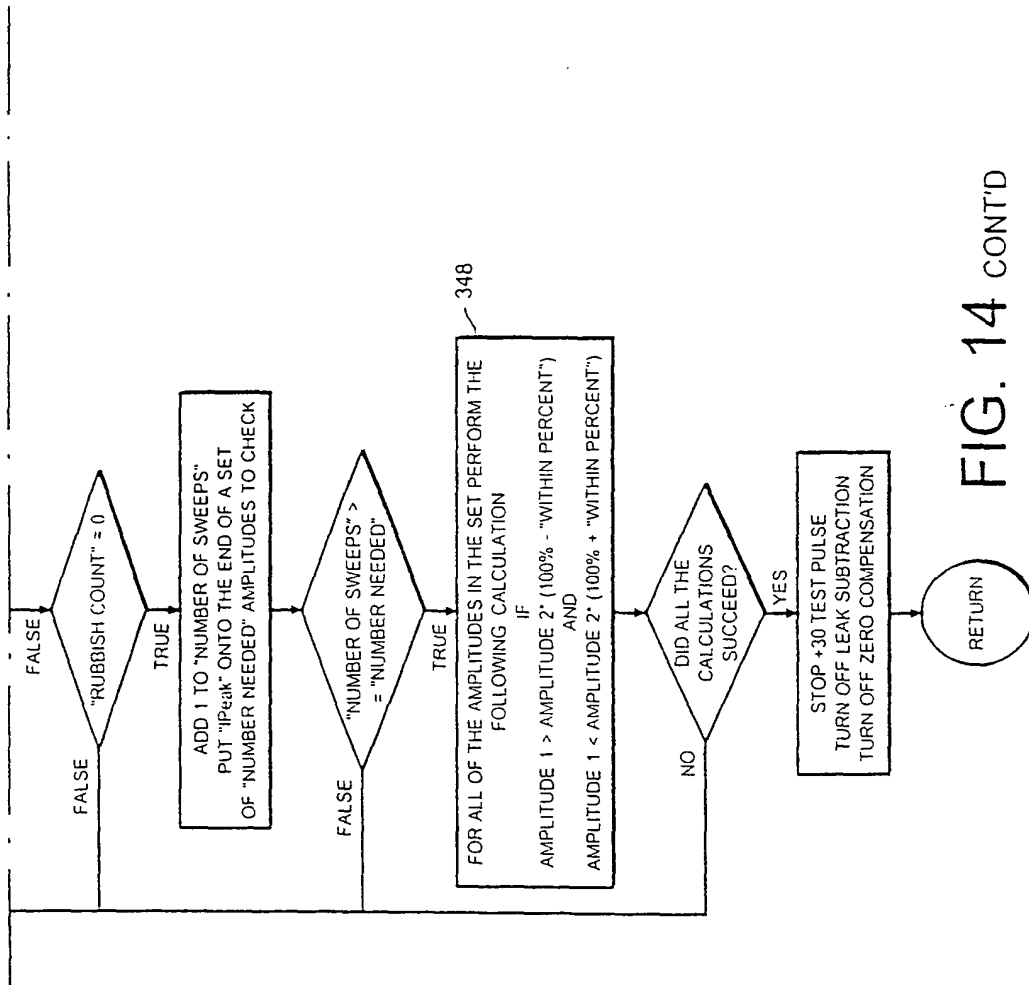
FIG. 13

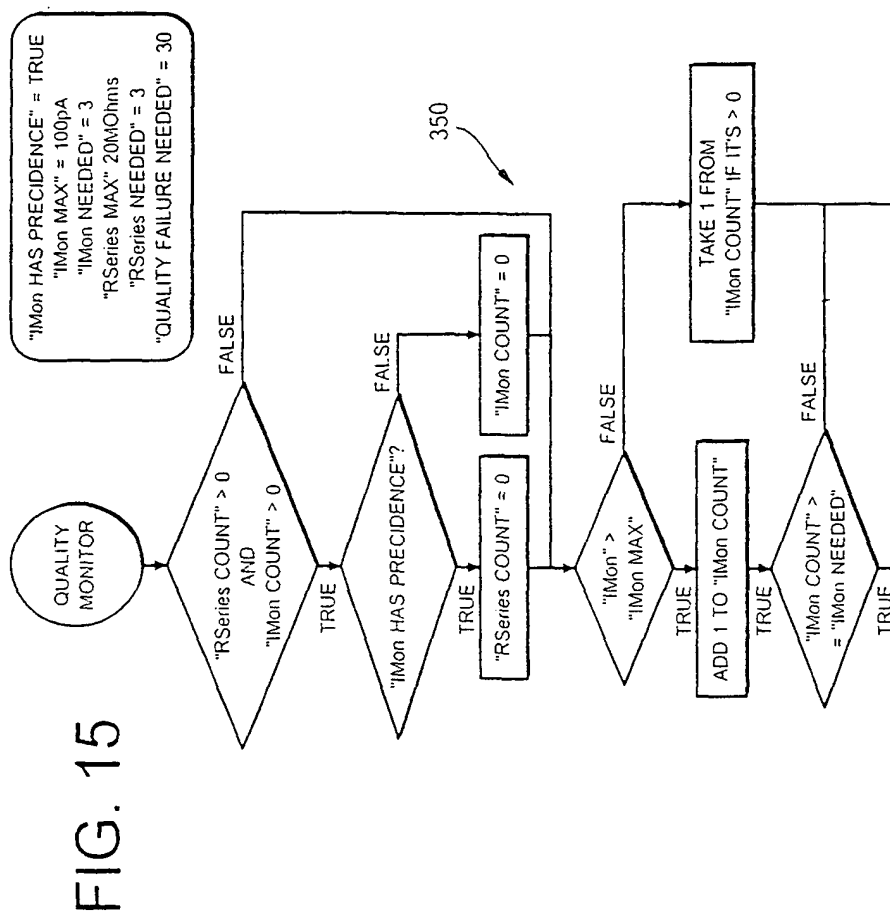












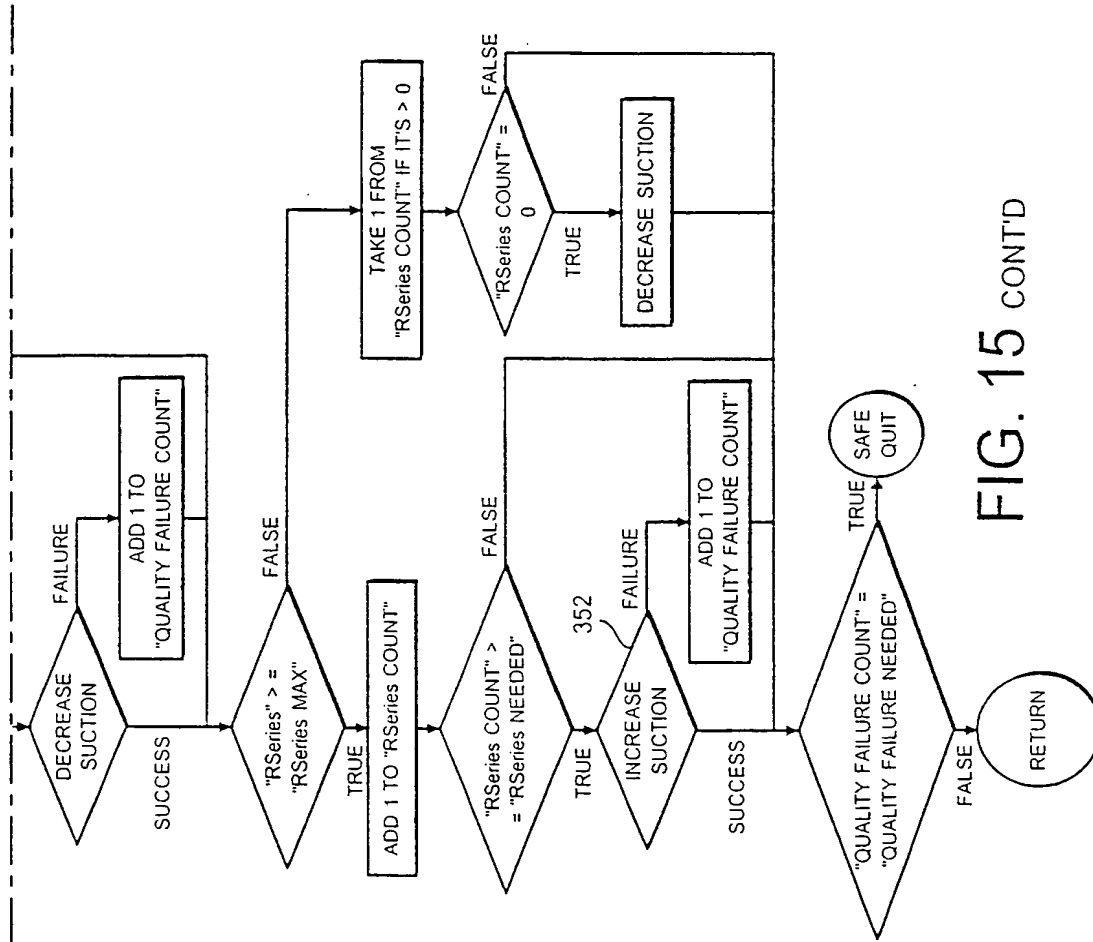


FIG. 16

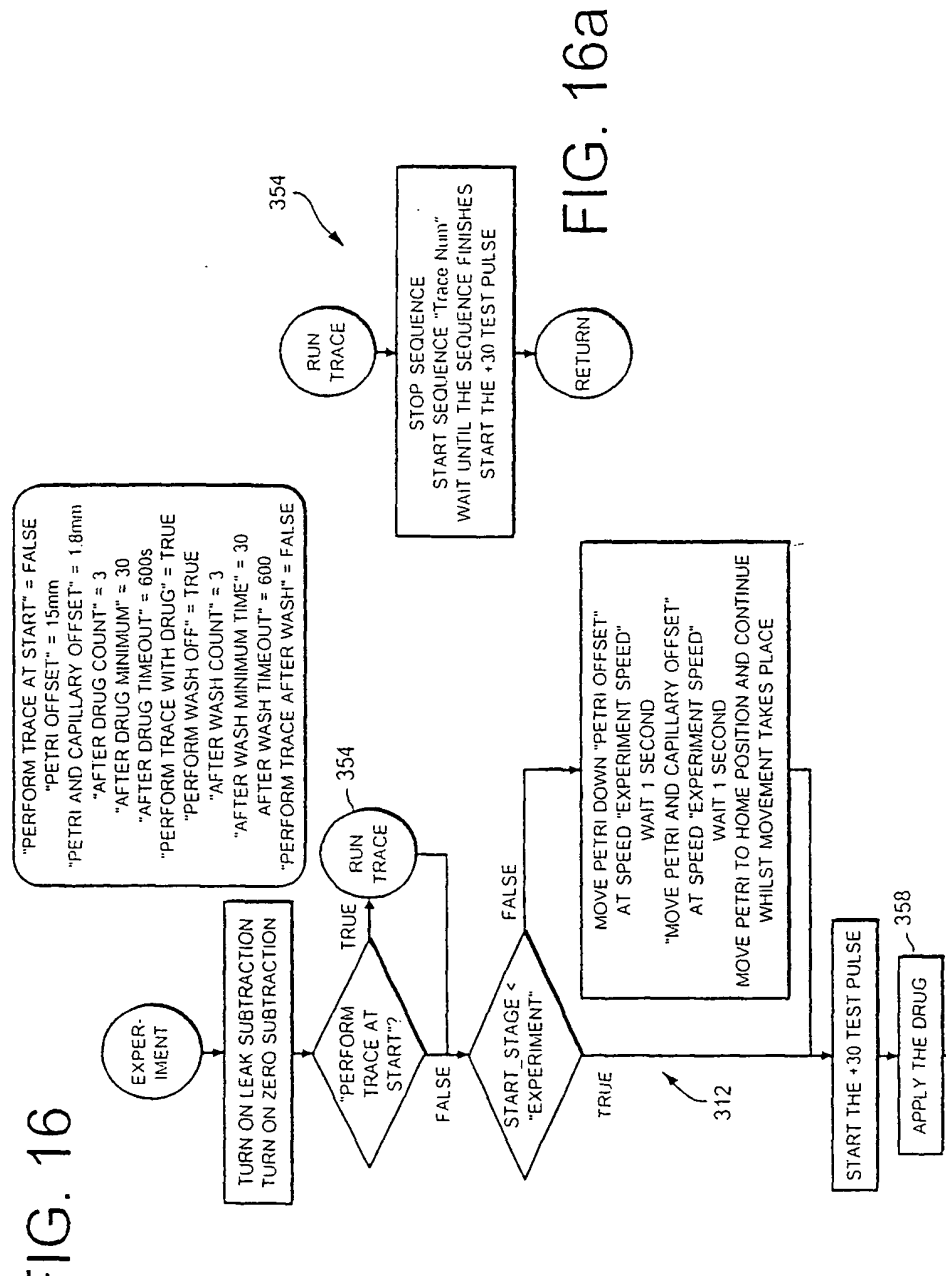


FIG. 16a

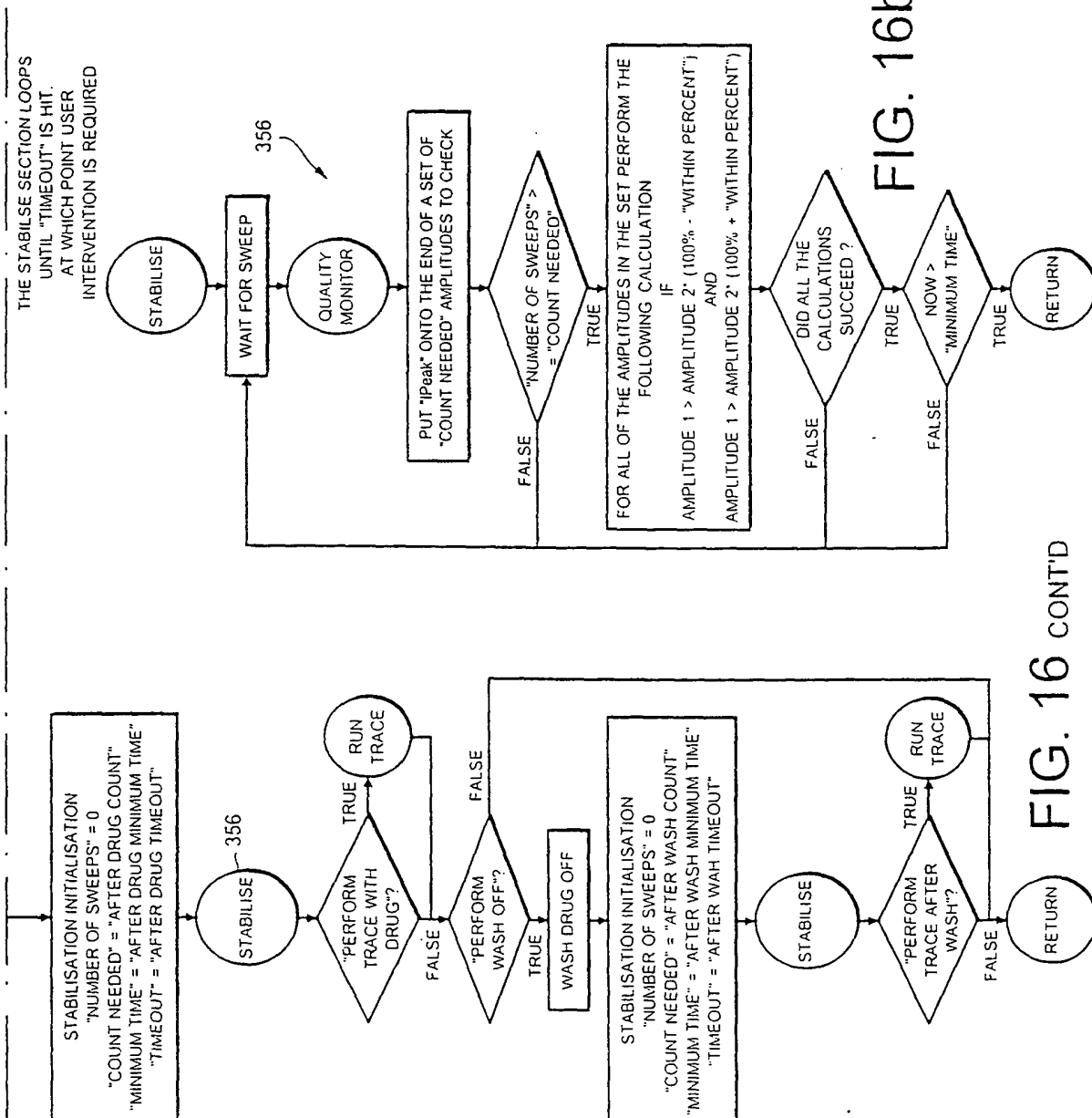


FIG. 16 CONT'D

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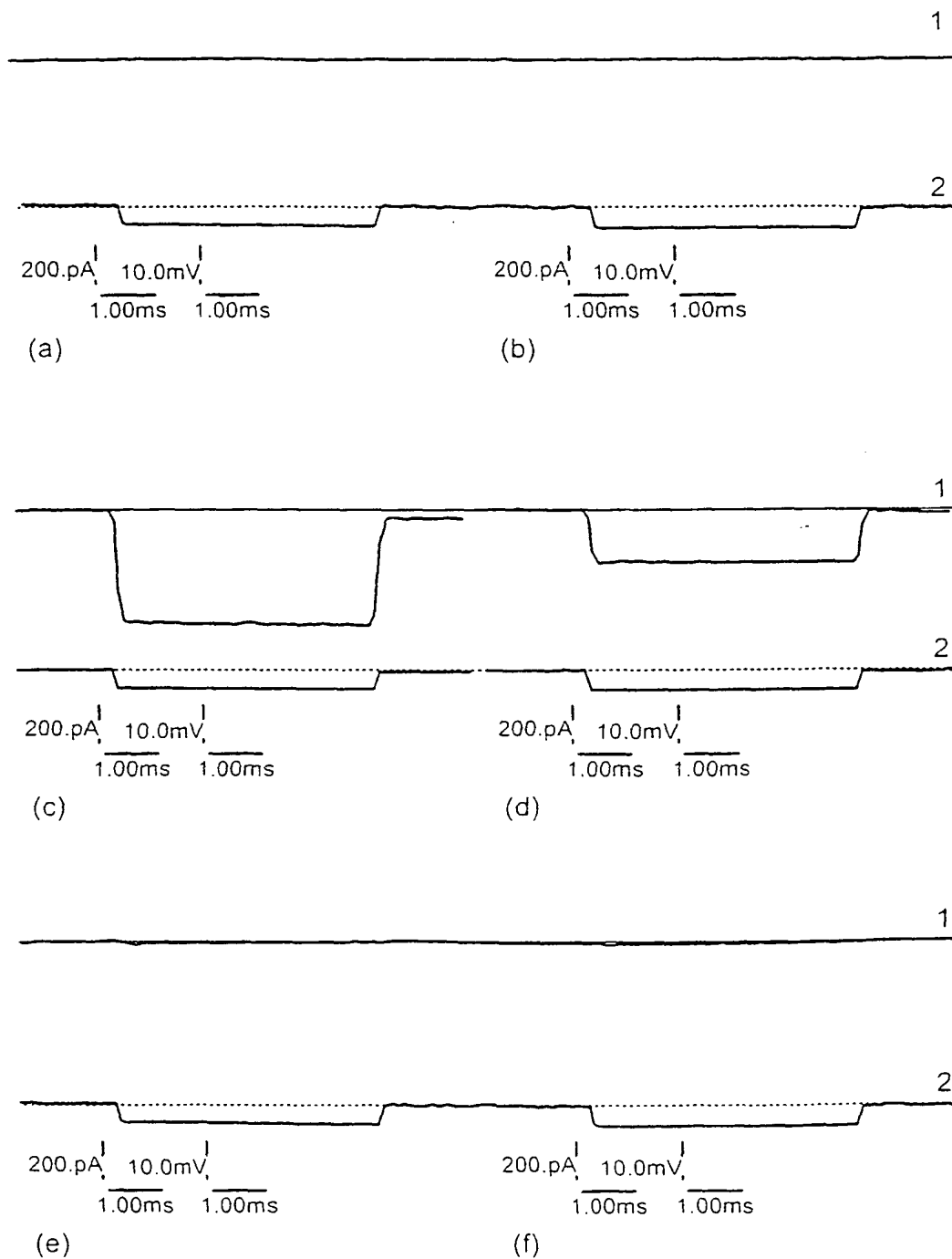
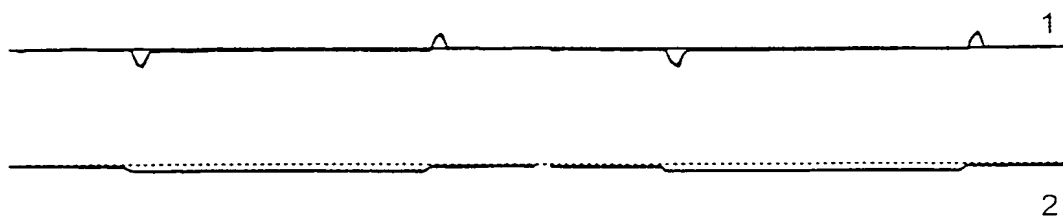


FIG. 17



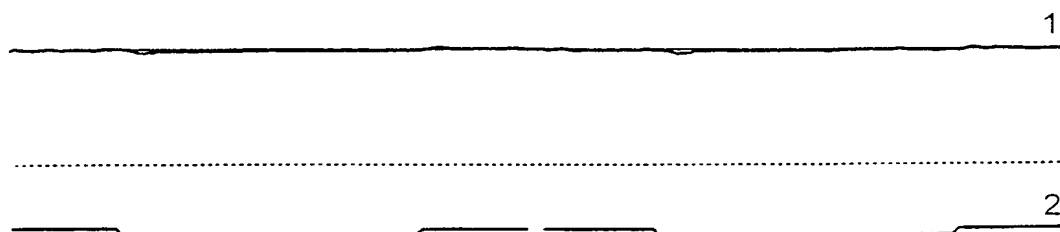


200.pA, 50.0mV,  
1.00ms 1.00ms

(a)

200.pA, 50.0mV,  
1.00ms 1.00ms

(b)



100.pA, 50.0mV,  
1.00ms 1.00ms

(c)

100.pA, 50.0mV,  
1.00ms 1.00ms

(d)

FIG. 18

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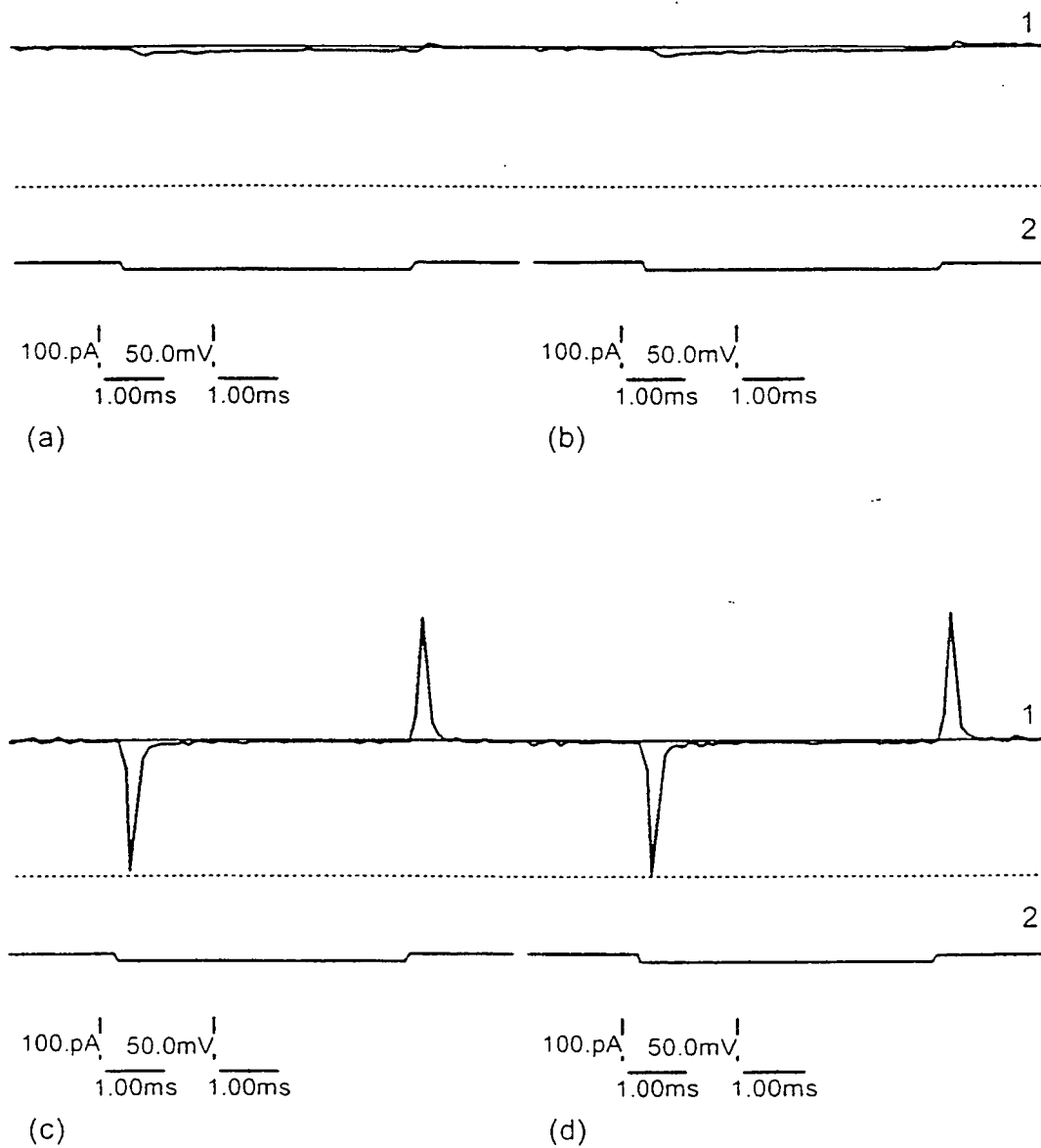


FIG. 19

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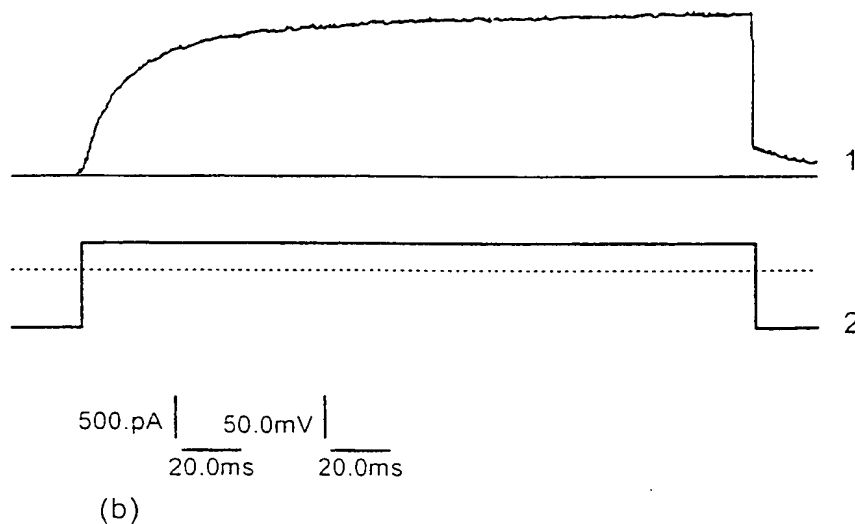
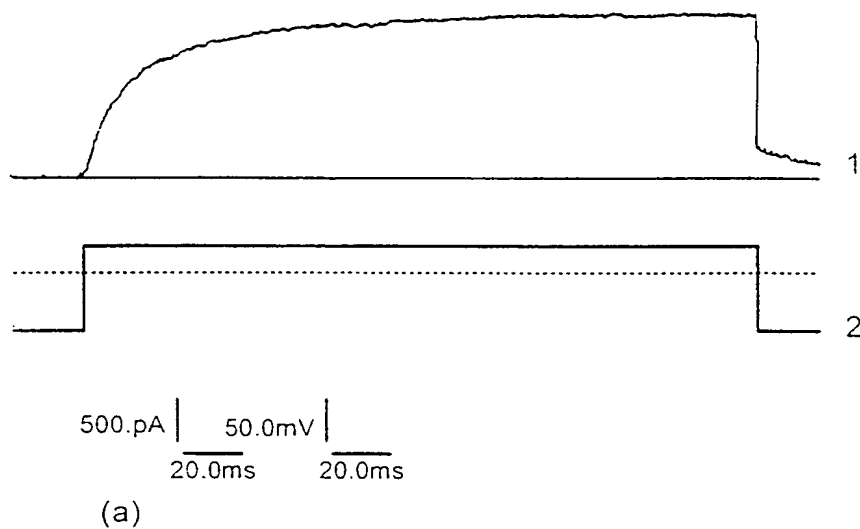
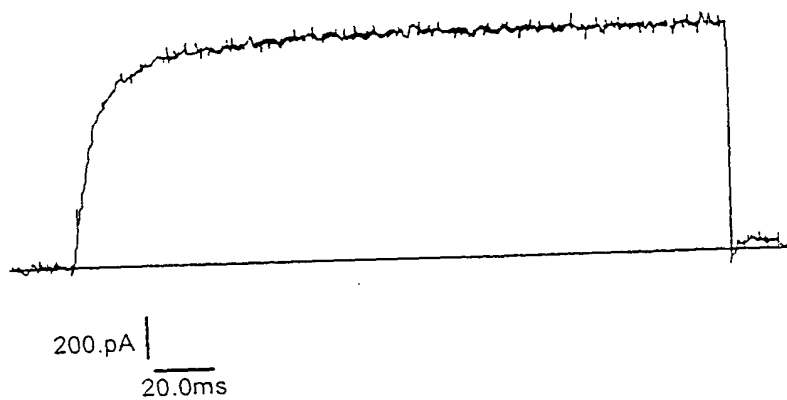
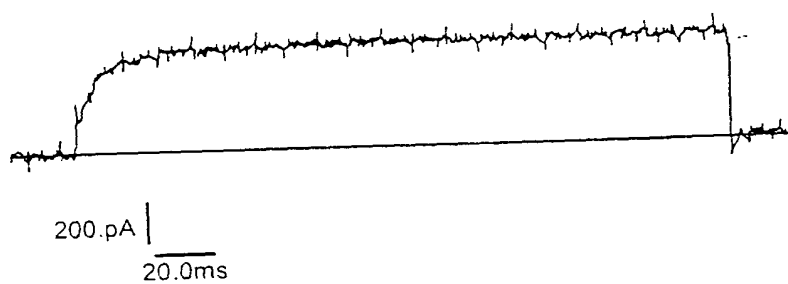


FIG. 20



(a)



(b)



(c)

FIG. 21

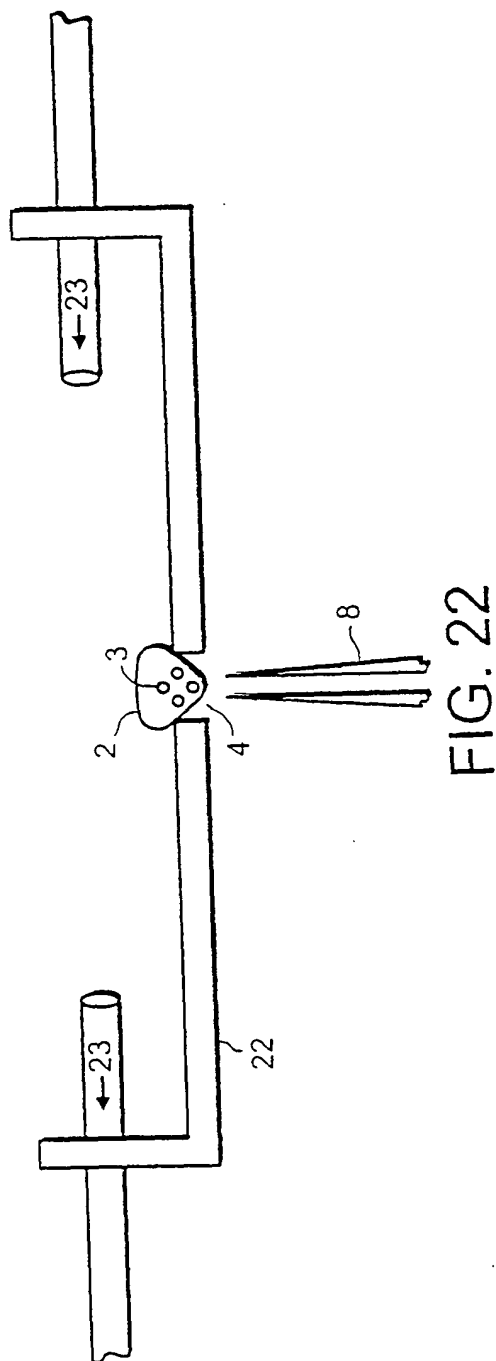


FIG. 23

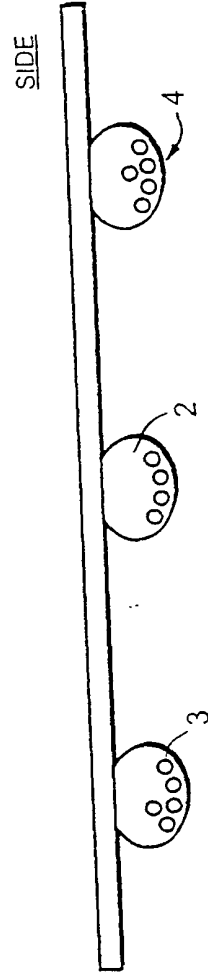
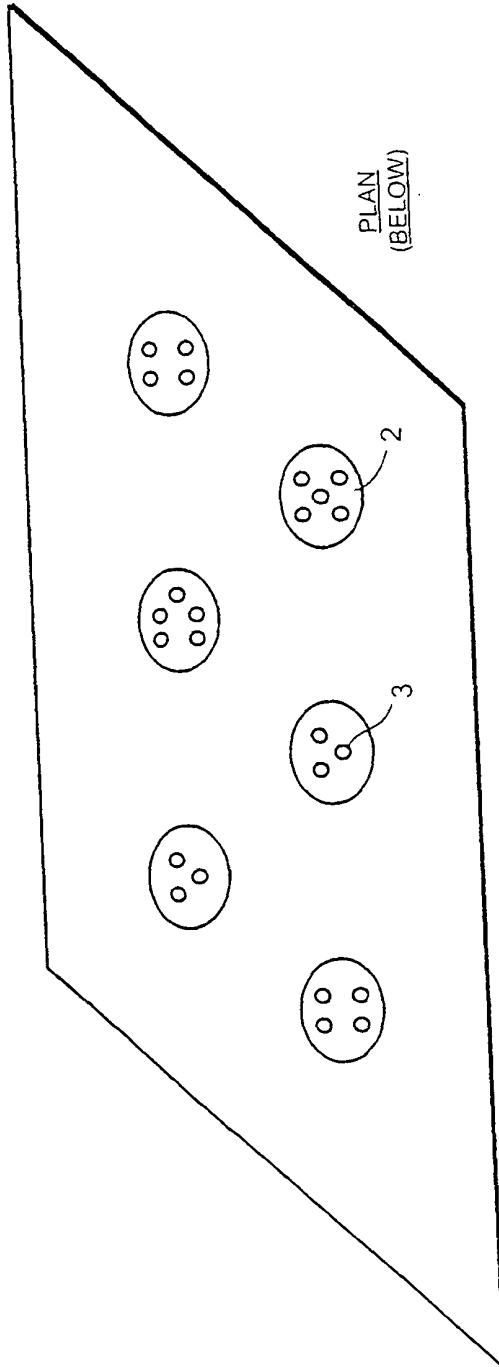


FIG. 23

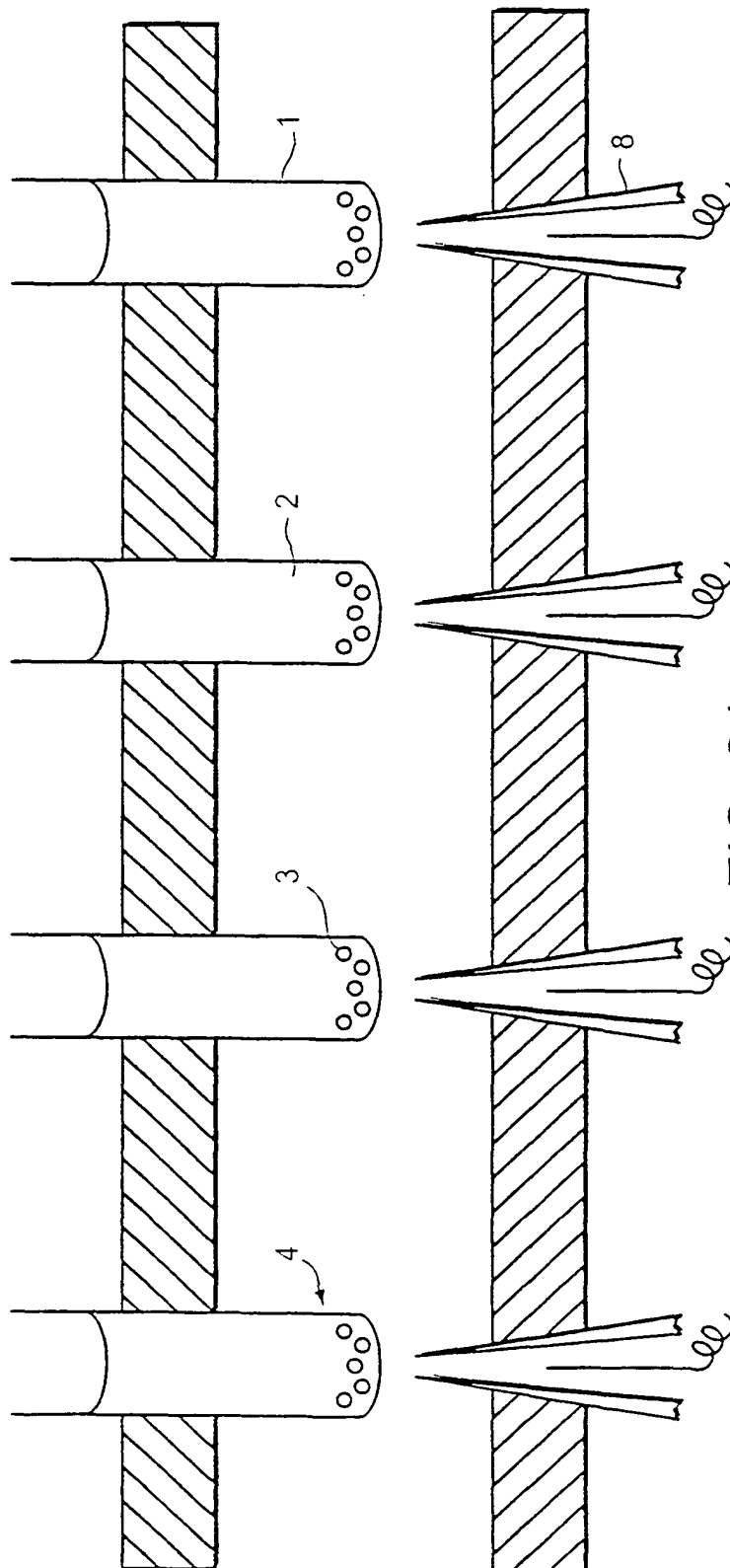


FIG. 24

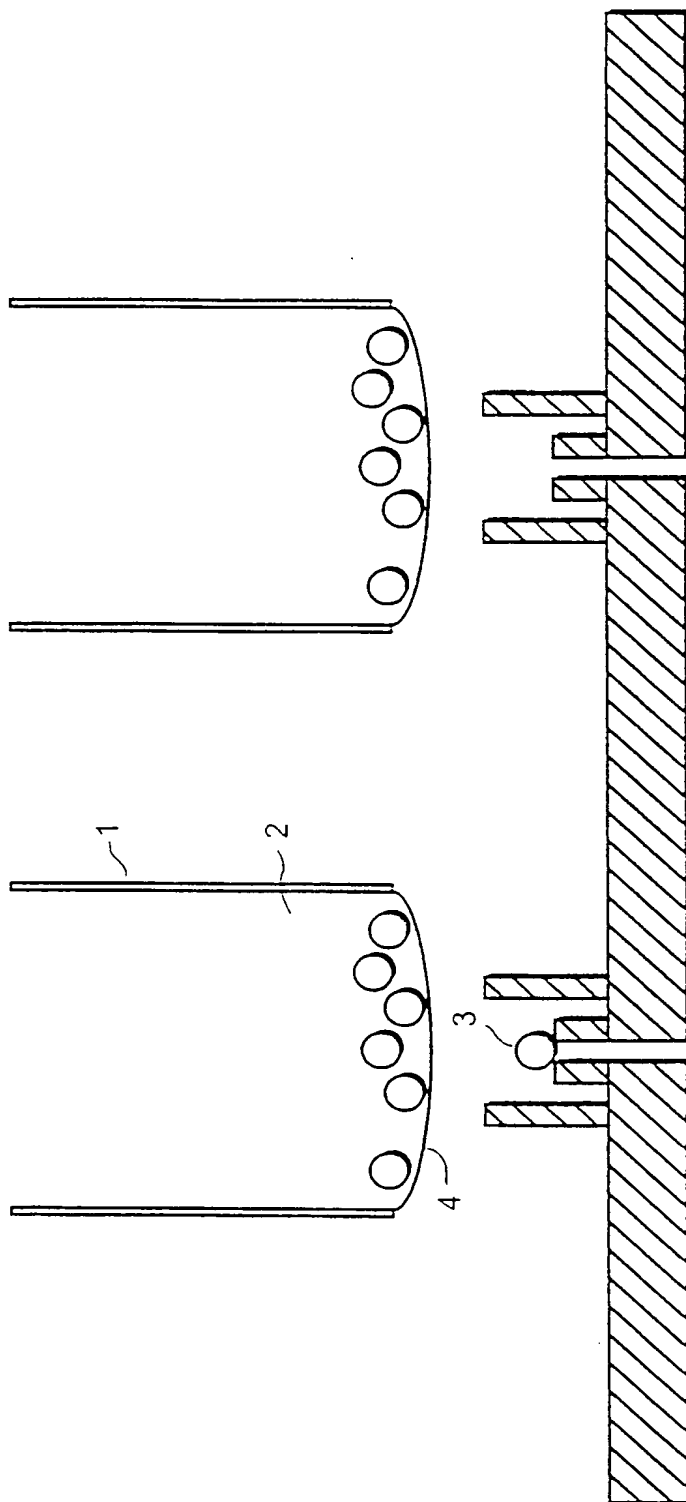


FIG. 25



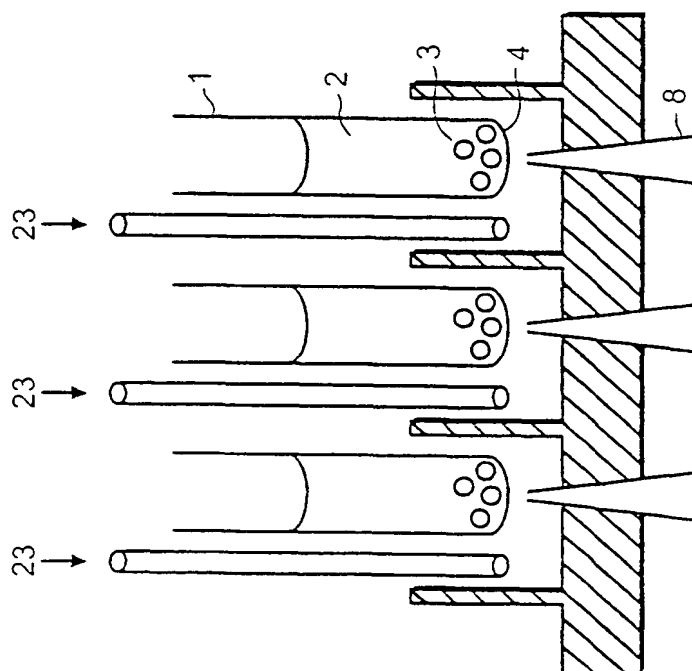


FIG. 26a

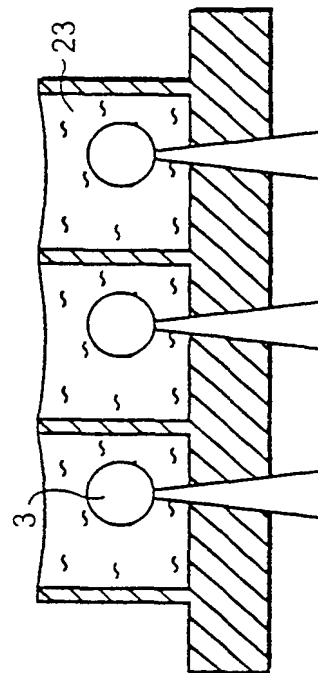


FIG. 26b